

ABSTRACT OF THE DISCLOSURE

BODY CONTACT MOSFET

A body contact structure utilizing an insulating structure between the body contact portion of the active area and the transistor portion of the active area is disclosed. In one
5 embodiment, the present invention substitutes an insulator for at least a portion of the gate layer in the regions between the transistor and the body contact. In another embodiment, a portion of the gate layer is removed and replaced with an insulative layer in regions between the transistor and the body contact. In still another embodiment, the insulative structure is formed by forming multiple layers of gate dielectric between the
10 gate and the body in regions between the transistor and the body contact. The body contact produced by these methods adds no significant gate capacitance to the gate.